

M	A	L	L	A	R	I	L	R	A	G	L	R	P	A	P	E	R	G	G	SEQ ID NO:2	
ATG	GCC	CTG	CTG	GCG	CGG	ATC	CTG	AGA	GCC	GGG	CTG	CGG	CCG	GCG	CCC	GAG	CGG	GGT	GGG	SEQ ID NO:1	
<b>↑SEQ ID NO:3→</b>																					
L	L	G	G	G	A	P	R	R	P	Q	P	A	G	A	R	L	P	A	G	40	
CTC	CTG	GGC	GGC	GGG	GCC	CCG	CGG	CCT	CAA	CCC	GCG	GGC	GCA	CGG	CTC	CCG	GGC	GGG	120		
A	R	A	E	D	K	G	A	G	R	P	G	S	P	P	G	G	R	A	60		
GCG	CGG	GCC	GAG	GAC	AAA	GGC	GCC	GGG	CGG	CCG	GGG	TCG	CCG	CCG	GGA	GGG	GGC	CGA	GCC	180	
E	G	P	R	S	L	A	A	M	P	G	P	R	T	L	A	N	L	A	E	80	
GAG	GGT	CCC	CGG	AGC	CTC	GCC	ATG	CCG	GGG	CCG	AGG	ACC	CTC	GCC	AAC	CTG	GCG	GAG	240		
F	F	C	R	D	G	F	S	R	I	H	E	I	Q	Q	K	H	T	R	E	100	
TTC	TTC	TGC	AGG	GAC	GGC	TTC	AGC	CGC	ATC	CAC	GAG	ATC	CAG	CAG	AAG	CA	ACA	CGG	GAA	300	
Y	G	K	I	F	K	S	H	F	G	P	Q	F	V	V	S	I	A	D	R	120	
TAT	GGA	AAA	ATC	TTC	AAG	TCT	CAC	TTT	GGT	CCT	CAG	TTT	GTA	GTA	TCT	ATT	GCA	GAC	CGC	360	
D	M	V	A	Q	V	L	R	A	E	G	A	A	P	Q	R	A	N	M	E	140	
GAT	ATG	GTG	GCT	CAG	GTG	CTC	CGG	GCG	GAG	GGC	GCT	GGC	CCC	CAG	AGA	GCC	AAC	ATG	GAG	420	
S	W	R	E	Y	R	D	L	R	G	R	A	T	G	L	I	S	A	E	G	160	
TCC	TGG	CGG	GAG	TAC	CGA	GAC	TTG	CGG	GGG	AGA	GCC	ACC	GGG	CTC	ATC	TCG	GCG	GAG	GGT	480	
E	Q	W	L	K	M	R	S	V	L	R	Q	R	I	L	K	P	K	D	V	180	
GAA	CAG	TGG	CTC	AAG	ATG	AGA	AGC	GTA	TTG	AGA	CAA	AGA	ATT	CTG	AAA	CCG	AAA	GAT	GTG	540	
A	I	Y	S	G	E	V	D	Q	V	I	A	D	L	I	K	R	I	Y	L	200	
GCC	ATT	TAT	TCT	GGA	GAA	GTC	GAC	CAA	GTT	ATT	GCT	GAC	TTA	ATT	AAA	AGA	ATC	TAC	CTC	600	
L	R	S	Q	A	E	D	G	E	T	V	T	N	V	N	D	L	F	F	K	220	
CTC	AGG	AGC	CAG	GCA	GAA	GAT	GGA	GAA	ACC	GTG	ACC	AAT	GTC	AAT	GAT	CTT	TTC	TTC	AAA	660	
Y	S	M	E	G	V	A	T	I	L	Y	E	S	R	L	G	C	L	E	N	240	
TAT	TCA	ATG	GAA	GGA	GTG	GCC	ACC	ATC	CTT	TAT	GAG	AGT	CGT	TTG	GGC	TGC	CTG	GAA	AAC	720	
S	I	P	Q	L	T	V	E	Y	I	E	A	L	E	L	M	F	S	M	F	260	
AGC	ATC	CCA	CAG	CTG	ACT	GTG	GAA	TAC	ATC	GAG	GCC	CTG	GAG	CTC	ATG	TTT	AGC	ATG	TTC	780	
K	T	S	M	Y	A	G	A	I	P	R	W	L	R	P	F	I	P	K	P	280	
AAG	ACC	TCC	ATG	TAT	GCA	GGC	GCC	ATC	CCC	AGA	TGG	CTT	CGC	CCC	TTC	ATC	CCA	AAG	CCC	840	
W	R	E	F	C	R	S	W	D	G	L	F	K	F	S	Q	I	H	V	D	300	
TGG	CGG	GAA	TTC	TGC	AGG	TCC	TGG	GAT	GGA	CTC	TTC	AAA	TTC	AGC	CAA	ATT	CAT	GTT	GAC	900	
N	K	L	W	D	I	Q	Y	Q	M	D	R	G	R	R	V	S	G	G	L	320	
AAC	AAG	TTG	TGG	GAC	ATA	CAG	TAC	CAA	ATG	GAC	CGA	GGC	CGG	AGG	GTG	AGC	GGG	GGG	GGA	CTT	960
L	T	Y	L	F	L	S	Q	A	L	T	L	Q	E	I	Y	A	N	V	T	340	
CTC	ACA	TAC	CTC	TTC	CTT	AGC	CAG	GCT	CTG	ACG	CTG	CAG	GAG	ATC	TAC	GCC	AAC	GTG	ACT	1020	
E	M	L	L	A	G	V	D	T	T	S	F	T	L	S	W	T	V	Y	L	360	
GAG	ATG	CTG	CTG	GCC	GGC	GTC	GAC	ACG	ACG	TCC	TTG	ACC	TTG	TCT	TGG	ACG	GTG	TAC	CTC	1080	

L	A	R	H	P	E	V	Q	Q	T	V	Y	R	E	I	V	K	N	L	G	380
CTG	GCA	AGG	CAC	CCA	GAA	GTG	CAG	CAG	ACG	GTG	TAC	CGG	GAG	ATT	GTG	AAG	AAT	TTA	GGG	1140
E	R	H	V	P	T	A	A	D	V	P	K	V	P	L	V	R	A	L	L	400
GAA	AGG	CAT	GTT	CCA	ACT	GCA	GCT	GAT	GTC	CCC	AAG	GTC	CCG	CTG	GTC	AGA	GCT	CTC	CTT	1200
K	E	T	L	R	L	F	P	V	L	P	G	N	G	R	V	T	Q	E	D	420
AAG	GAA	ACC	CTG	AGG	CTG	TTT	CCA	GTG	CTG	CCA	GGG	AAC	GGC	CGG	GTC	ACC	CAG	GAA	GAC	1260
L	V	I	G	G	Y	L	I	P	K	G	T	Q	L	A	L	C	H	Y	A	440
CTG	GTT	ATT	GGC	GGG	TAT	CTG	ATT	CCG	AAA	GGC	ACC	CAG	CTG	GCC	CTT	TGC	CAC	TAT	GCC	1320
T	S	H	Q	D	E	N	F	P	R	A	K	E	F	R	P	E	R	W	L	460
ACA	TCG	CAC	CAG	GAT	GAG	AAC	TTC	CCT	CGG	GCC	AAG	GAG	TTC	CGA	CCT	GAG	CGC	TGG	CTG	1380
R	K	G	D	L	D	R	V	D	N	F	G	S	I	P	F	G	H	G	V	480
CGG	AAA	GGA	GAC	TTA	GAT	AGA	GTT	GAC	AAT	TTT	GGA	TCC	ATC	CCC	TTT	GGT	CAT	GGG	GTT	1440
R	S	C	I	G	R	R	I	A	E	L	E	I	H	L	V	V	I	Q	L	500
CGC	AGC	TGC	ATA	GGG	CGG	AGA	ATT	GCA	GAA	CTG	GAG	ATT	CAC	CTC	GTC	GTG	ATC	CAG	TTG	1500
L	Q	H	F	E	I	K	T	S	S	Q	T	N	A	V	H	A	K	T	H	520
CTT	CAA	CAT	TTT	GAG	ATC	AAA	ACA	TCT	TCT	CAG	ACC	AAT	GCT	GTT	CAT	GCA	AAA	ACC	CAC	1560
G	L	L	T	P	G	G	P	I	H	V	R	F	V	N	R	K	*		538	
GGG	CTC	CTG	ACG	CCA	GGG	GGG	CCC	ATC	CAC	GTG	CGA	TTT	GTT	AAC	AGA	AAG	TAA		1614	
←SEQ ID NO:3↑																				
GCCTAGATTAAACCTGGGCTGATGTAGCAGACAGCTGCCGACACACAGTGGTATTGTGTTGCTGATCACCGT																				
GGAGAAGGAAAGCGATGTCGCTAAAGGCTGTCTGTTAGACTGGCTCCCAGGTCTGGGACACTGTAAATCTTAA																				
TGCAAAGTAATGTAAGGTTGCTATTTACTGGTGCATACAGAAGTTGCCCTTCTTGGGGAAACAGCTGTTA																				
AAAACCAGTGGCAGTGAATTATGCTTCATACATTGNGCTAGACTCAATATTAATGACTGGCAGTATCCTGTGCAT																				
TTACTTGTACAGGGAAATGGTGGNTTACTTACAAATTCAAGTTCTTC																				

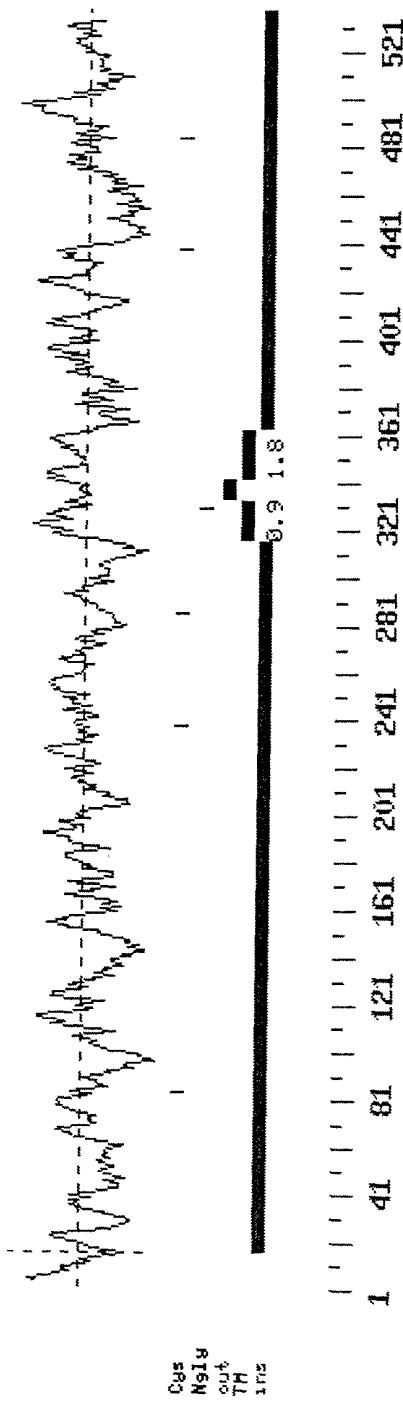


FIG. 2

\*->PPgPpp1PliGnll.qlgrapgpiph.sltkrlrkakrYGkpvtlyl SEQ ID NO:4  
PgP l ++ ++ g+ i h++ +k + + YG ++f ++  
27439 69 MPGPRTLANLAEFFcRDGF--SRI-HeIQQKHTR-E-YG-KIFKSHF 109

GprpvVvltgpeavkevLidkgeeFakgRgdfnptfpwlskgyre.....  
Gp+ vV + + ++v +vL +g ++ R + + w+ yr+ +++  
27439 110 GPQFVVSIADRDMVAQVLRAEGAAPQ--RANM---ESWR--EYRDlrga 152

qgllfsdnGpkWrklRrFsllt1rfHFgmGaysKrsqkleePriqeeard  
+gl+ + +G++W k+R l +r +++ +++++ +++++ d  
27439 153 TGLISA-EGEQWLKMRS--VLRQRI-LKP----KDAVIAISGEVDQVIAD 193

Lverlrk...eqa.gspi.DitellarlaplnvIcsllFGvrfdylr...  
L++r+ ++++++g++++++ +l++ ++ ++ +l+ r+++l++  
27439 194 LIKRIYLLrsQAEdGETVtNVNDLFF-KYSMEGVATILYESRLGCLEnsi 242

peDp.eflkklidkllnemfdrvspwhqlldifP.fLlrylpgslfrkafk  
p + e++ +++ l+ mf ++s+ ++ +P++L+++ p++ +r+ +  
27439 243 PQLTvEYIEALE-LMFMSMF-KTSM--YAG-AIPrWLRPFIPKP-WREFC- 285

aakd.lkdyldkliierretlepagdpRrlD.i.....gf1DslLleakr  
+ +d+l+++ + + + + + D+ ++ ++g+1 + l+++  
27439 286 RSWDgLFKFSQIHVDNKLW--DI-QYQM--DrGrrvsgGLL-T-YLFLSQ 328

eggnpkselsdeelaatvldllfAGteTTsstLswaLyLLakhPevqakl  
1+ e+ a+v ++l AG++TTs tLsw++yLLa+hPevq+ +  
27439 329 -----ALTLQEIYANVTEMLLAGVDTTSFTLSWTVYLLARHPEVQQT 371

reEideviGrdrsptydvDaraqmPYLdAvIkEtLRLypvvPlllpRvat  
+ Ei +G pt D +++ P++ A +kEtLRL+pv+P + +Rv+  
27439 372 YREIVKNLGERHVTAA-D-VPKVPLVRALLKETLRLFPVLP-GNGRVTQ 418

kDteiPdGylIPKGt1VivnlyslhrDpkvfpnPeeFdPeRFL.....de  
+D +i +GylIPKGt+ ++ y+ + ++ fp++ eF+PeR+L++++ d  
27439 419 EDLVI-GGYLIPKGTLQLALCHYATSHQDENFPRAKEFRPERWLrkgd1DR 467

ngkfkkksyaflPFGaGpRnClGer1ArmElflfLat1LqrFPelelavpp  
+ + +PFG+G+R+C+G+r+A++E+ l+++++llq+F e++++ +  
27439 468 -----VDNFSGSIPFGHGVRSICGRRIALEIHLVVIQLLQHF-EIKTSSQT 512

gdipsltpkpelglpskpplykvqlrpa<-\*  
++ + + ++l++ +p++ +r +  
27439 513 NAVH-AKTH--GLLTPGGPIH---VR-F 533

FIG. 3

Query: 146 RDLRGRATGLISAEGE<sup>W</sup>QWLKMR<sup>S</sup>VLQR<sup>I</sup>LKP<sup>K</sup>D<sup>V</sup>AIYS<sup>G</sup>EVDQ<sup>V</sup>IA<sup>D</sup>L<sup>I</sup>K<sup>R</sup>IYLLRSQA 205  
RD RG A GL++AE<sup>E</sup>GE+W ++RS L +<sup>++</sup>KP++V Y +<sup>++</sup>V D ++R+ +R Q  
Sbjct: 11 RDYRGEAYGLLTAEGEEWQRLRSALNP<sup>K</sup>LMKPQEV<sup>V</sup>NYIP<sup>K</sup>LN<sup>E</sup>V<sup>S</sup>QDFVERL<sup>R</sup>KMRDQG 70 SEQ ID NO:5

Query: 206 E-DGETVTNVNDLFFKYSMEGVATILY<sup>E</sup>SR<sup>L</sup>G<sup>C</sup>LE-NS<sup>I</sup>PQLTVEY<sup>I</sup>EA<sup>L</sup>ELMFSMF<sup>K</sup>TS 263  
+ GE V + + +K++ E + T+L+ RLG<sup>C</sup>LE N++ +<sup>++</sup>I+A++ SMF T+  
Sbjct: 71 QQQGELVEDFAEELYKWA<sup>F</sup>E<sup>S</sup>IC<sup>T</sup>V<sup>L</sup>F<sup>G</sup>KRLG<sup>C</sup>LEEN<sup>N</sup>V<sup>D</sup>PEAQKFIDAVK---SMFHTT 127

Query: 264 MYAGAIPRWL-RPFIPK<sup>P</sup>W<sup>R</sup>FCRSWDGLFKFSQIHV<sup>D</sup>NKLWDI<sup>Q</sup>YQMDRG 313  
+ +P L R F K W++ R+WD +F Q ++D L ++ + G  
Sbjct: 128 VPMMNM<sup>P</sup>PELWRYFKTKT<sup>W</sup>KDHVRAWDQIFDVCQKYIDEALERLEKESQSG 178

FIG. 4

Query: 71 G<sup>P</sup>R<sup>T</sup>LANLAEFFCRDGFSRIHE-IQQKHTREYGKIFKSHFG-PQFVVSIADRD<sup>M</sup>V<sup>A</sup>QVLR 128  
G + L + G + +H+ I +H ++YG IF+ G Q V ++ + + V +  
Sbjct: 64 GLPVVG<sup>T</sup>LVDLIAAGGATHL<sup>H</sup>KYIDARH-KQYGP<sup>I</sup>F<sup>R</sup>ERLGGTQDAFVSSANLMRGVFQ 122 SEQ ID NO:6

Query: 129 AEGAAPQRANMESWREYRDLRGRATGLISAEGE<sup>W</sup>QWLKMR<sup>S</sup>VLQR<sup>I</sup>LKP<sup>K</sup>---DVAIYS 184  
EG PQ ++W Y GL EG +WL R +L + L DV I S  
Sbjct: 123 HEGQYPQHPLPDAWTLYNQQHACQRGLFFM<sup>E</sup>GAELHNR<sup>R</sup>ILN<sup>R</sup>LLNGN<sup>L</sup>NWMDVHIES 182

Query: 185 GEVDQVIADLIK<sup>I</sup>YLLRSQ---AEDGET---VTNVNDLFFKYSMEGVATILY-ESRLG 236  
+ + D KR + AE GE + + + +S+E + I++ S L  
Sbjct: 183 --CTRRMVDQWKRRTAEAAAIPLAESGEIRSYELPLLEQQLYRWSIEVLCCIMFGTSVLT 240

Query: 237 CLENSIPQLTVEY<sup>I</sup>EA<sup>L</sup>ELMFSMF<sup>K</sup>TSMYAGAIPRWL<sup>R</sup>P<sup>F</sup>IP<sup>K</sup>-WREFCRSWDGLFKFS 295  
C + Q + +Y + + + F+ S P L + P WR+F + D + +  
Sbjct: 241 CPKI---QSSLDYFT--QIVHKVFEHSSRLMTFPPRLA<sup>Q</sup>ILRLPIWRD<sup>F</sup>EANVDEV<sup>L</sup>REG 295

Query: 296 QIHV<sup>D</sup>NKLWDI<sup>Q</sup>YQMDGR<sup>R</sup>RVSG<sup>G</sup>LLT<sup>L</sup>Y<sup>L</sup>FLSQ<sup>A</sup>LT<sup>L</sup>Q<sup>E</sup>IYANV-TEMLLAGV<sup>D</sup>TT<sup>S</sup>FTL 354  
+D+ I+ Q D+ R L Y L A ++ + + + +A DTT+F+  
Sbjct: 296 AAIIDHC---IRVQEDQRRPHDEAL--YHRLQA<sup>D</sup>VPGDMIKR<sup>I</sup>F<sup>V</sup>DLVIAAGDTTAFSS 350

Query: 355 SWTVYLLARHPEVQQT<sup>V</sup>YREIV<sup>K</sup>NLGERH<sup>V</sup>P<sup>T</sup>A<sup>D</sup>V<sup>K</sup>V<sup>L</sup>R<sup>A</sup>LLK<sup>E</sup>TLRLF 407  
W ++ L++ P +QQ + +E N R L+ L+KE+LRL+  
Sbjct: 351 QWALFALSKEPRLQQRLAKERATN-DSR-----LMHGLIKESLR<sup>L</sup>Y 390

FIG. 5

Query: 66 LAAMPG<sup>P</sup>RT<sup>T</sup>LANLAEFFCRDGFSRIHEIQQKHTREYGKIFKSHFGPQFVVSIADRD<sup>M</sup>V<sup>A</sup>Q 125  
LA +PGP TL L + FC+ +HE+Q YG ++ S FG Q V++A +V Q  
Sbjct: 37 LADIPGP<sup>G</sup>TLRFLQ<sup>L</sup>FCKGYLL<sup>L</sup>HLHELQVLGKARYGPMWMSSFGTQRTVNLAS<sup>P</sup>PLVEQ 96 SEQ ID NO:7

Query: 126 VLRAEGAAPQRANMESWREYRDLRGRA 152  
V+R EG P R + E W+E+R RA  
Sbjct: 97 VMRQE<sup>G</sup>KY<sup>P</sup>V<sup>R</sup>CSFEPW<sup>K</sup>E<sup>H</sup>RRRHQRA 123

FIG. 6

Query: 389 DVPKVPLVRALLKETLRLFPVLPNGRVTQEDL---VIGG-YLIPKGTQLALCHYATSH 443  
D+ K+P + A++KETLRL P +P R ++D+ +GG Y IPKGTQ+ + Y +H  
Sbjct: 8 DLQKLPYLDAVIKETLRLHPPVPTVMRKVKDMEVSGTVGEYTI PKGTQVMVSPYVMTH 67 SEQ ID NO:8

Query: 444 QD-ENFPRAKEFRPERWLRKGD 464  
+D E +P +EF PERWL +  
Sbjct: 68 RDPEYYPDPEEFNPERWLEPSE 89

FIG. 7

Query: 99 REYGKIFKSHFGPQFVVSIA DRDMVAQV-LRAEGAAPQRANMESWREYDLRGRATGLIS 157  
++YG IF+ G Q ++ IA+ ++ +V ++ P R+ + S L + GL  
Sbjct: 74 KQYGPPIFRFQMG RQPLIIIAEAEELCREVGIKKFKDLPNRS-IPSPSISPLHKK--GLFF 130 SEQ ID  
NO:9

Query: 158 AEGEQWLKMRSQLRQRI LKPKDVAIYSGEVDQVIADLIKRIYLLRSQAEDGETVTNVNDL 217  
++W KMR+ + + +P + + + + + + + + L S+ D ++L  
Sbjct: 131 TRDKRWSKMRNTILS-LYQPSHL---TSLIPTMHSFITSATHNLDSKPRD---IVFSNL 182

Query: 218 FFKYSMEGVATILYESRLGCLENSIPQLTVEYIEAL-ELMFSMFKTS M-YAGAIP---RW 272  
F K + + + + G L P VE + + + ++S + M +G++  
Sbjct: 183 FLKLTTDIIGQAAFGVDFG-LSGKKPIKDVE TDFINQHVYSTTQLKMDLSGSLSIILGL 241

Query: 273 LRPFI PKPWREFCRSWDGLFKF---SQIHVDNKLWDI QYQMDRGRV-SGGLLTYL--- 324  
L P + +P+R+ + G + + + +L +I + + S L+ +  
Sbjct: 242 LIPILQEPFRQVLKRIPGTMDWRVEKTNARLSQLNEIVSKRAKEAETDSKDFLSLILKA 301

Query: 325 -----FLSQALT LQE IYANVTEMLLAGVDTTSFTLSWTYVYLLARHPEVQQT VYREIVKNL 379  
F T I A E LLAG TT+FTLS +YL++ H +V++ + +EI  
Sbjct: 302 RESDPFAKNIFTS DYISA VTYEHLLAGSATT AFTLSSVLYLVSGHLDVEKRL LQEI-DGF 360

Query: 380 GERH-VPTAADVP-KVPLVRALLKETLRLFPV 409  
G R +PTA D+ K P + ++KE +R + V  
Sbjct: 361 GNRDLIPTAHDLQHKFPYLDQVIKEAMRFYMV 392

FIG. 8

Query: 68 AMPGPRT---LANLAEFFCRDG-FS---RIHEIQQKHTREYGKIFKSHFGP-QFVVSIA DR 120  
A+PGPR + NL + G +S R+H+ Q +YG I + P Q +V + D  
Sbjct: 23 AIPGPGRGPFGMGNLYNLP GIGS YSWRLHQAGQDKYEKYGAIVRETIVPGQDIVWLYDP 82 SEQ ID  
NO:10

Query: 121 DMVAQVLRAEGAAPQRANMESWREYDLRG---RATGLISAEGEQWLKMRSQLRQRI LKP 177  
+A +L E PQR + + +YR R + TGL+ G +W ++R+ + + + P  
Sbjct: 83 KDIALLLN-ERDCPQRRSHLALA QYRKSRPDVYKTTG LPTNGPEWW RIRAQVQKEL SAP 141

Query: 178 KDVAIYSGEVDQVIADLIK 196  
K V + +VD V + I+  
Sbjct: 142 KSVRN FVRQVDGVTKEFIR 160

FIG. 9

Query: 88 SRIHEIQQKHTREYGKIFKSHFGPQFVVIADRDMVAQVLRAEGAAPQRANMESREYRD 147  
+ + + + + + E K FG ++ + ++ + +AQ+ + E + N + Y  
Sbjct: 52 TELYDLYIRESMEKYGAVKFFFGRWNILVSRSEYLAQIFKDEDFAKSGNQKKI-PYSA 110 SEQ ID  
NO:11

Query: 148 LRGRATG--LISAEQEQLKMRSLRQRILPKDVAIYSGEVDQVIADLIKRIYLLRSQA 205  
L TG +ISA G W R+ + + D I+ + + LIK L  
Sbjct: 111 LAAY-TGDNVISAYGAVWRNRYRNAVTNGLQHFDDAPIFKNA--KILCTLIKNRLL---- 162

Query: 206 EDGETVTNVNDLFFKYSMEGVATILYESRLGCLENSIPQLTVEYIEALELMFS-MFKTSM 264  
+G+T + L + + + + + G L + I + +F F T  
Sbjct: 163 -EGQTSIPMGPLSQRMLDNISQVALGFDGFALTHEKNAFHEHLIRIKKQIFHPFFLTFP 221

Query: 265 YAGAIIPRWLRFPIPKPWREFCRSDGLFKFSQIHVDNKLWDIQQYQMDRGRRVSGGLLTYL 324  
+ +P P K + + + L K Q + N Y+ + + + L+  
Sbjct: 222 FLDVLPI--PSRKKAFKDVVSFRELLVKRVQDELVNN----YKFEQTTFAASDLIR-A 272

Query: 325 FLSQALTLQEIYANVTEMLLAGVDTTSFTLSWTYLLARHPEVQQTVYREIVKNLGERHV 384  
++ + + + N+ +L+AG + + +YLLA++ Q R+ V + +  
Sbjct: 273 HNNEIIDYKQLTDNIVIILVAGHENPQQLFNSSLYLLAKYSNEWQECLRKEVNGITD--- 329

Query: 385 PTAADVPKVPLVRAALLKETLRLFPVL 410  
P + +PL+ A L E +R++P L  
Sbjct: 330 PKG--LADLPLLNAFLFEVVRMYPPL 353

FIG. 10

Query: 396 VRALLKETLRLFPVLPNGRVTQEDLVIIGGYLIPKGTQLALCHYATSHQDENFPRAKEFR 455  
+R + ET+RL + P R + + + + GY IP T + + +  
Sbjct: 23 LRQVQDETIRLSTLAPWAARYSDKVTVCYTIAPAKTPMIHALGVGLKNKTVWENTDSWD 82 SEQ ID  
NO:12

Query: 456 PERWLRKGDLDRVDNFGSIPFG-HGVRSCIGRRIAELEIHLVVIQLLQHFEIKTSSQTNA 514  
P+R+ G R ++F PFG H R C G + E+ + LL FEI  
Sbjct: 83 PDRFSPNGR--RGNDF--CPFGVHSRRKCPGYLF SYFEVGVFASILLSRFEIVPVEGQTV 138

Query: 515 VHAKTHGLLT-PGGPIHVRFVNPK 537  
+ + HGL+T P I + +RK  
Sbjct: 139 I--QVHGLVTEPKDDIKIYIYRSRK 160

FIG. 11

Query: 344 LAGVDTTSFTLSWTYLLARHPEVQQTVYREIVKNLGERHVPTAADVPKVLVRALLKET 403  
+AG+DT + +L++ +Y + H E + E L PTA + + PL+ + ET  
Sbjct: 247 IAGMDTAANSLAFVLYRMHLHSEFLPALRAE-ADALFRDGPPTAELGRSPLLHRFVMET 305 SEQ ID  
NO:13

Query: 404 LRLFPVLP 411  
LR+ P+ P  
Sbjct: 306 LRVHPIAP 313

FIG. 12a

Query: 69 MPGPTTLANLAEFFCRDGFSRRIHEIQQKHTREYGKIFKSHFGPQFVVSIADRDVAQVLR 128  
+P P L + AE G ++ + + YG +F+ Q + +A + ++  
Sbjct: 2 VPAPPFLGHAAEM---GTLKLRPFLTRCYQAYGPVQLTVPGQKITVLAGPEANLFAMK 57 SEQ ID  
NO:14

Query: 129 AEGAAPQRANMESWREYRDLRGRATGLISAEGEQWLKMRDV 169  
EG R+ +E+WR+ G +IS +G + R V  
Sbjct: 58 -EGHRVLRS-LEAWRDNDHEMGSDRSMISLDGAEHRAYRRV 96

FIG. 12b

Query: 153 TGLISAEGEQWLKMRSVLRQRILPKDVAIYSGEVDQVIADLIKRIYLLRSQAEDGE--- 209  
T IS GEQW KMR V+ I+ PK + G+ + +L+ ++ + ++E  
Sbjct: 2 TVAISPYGEQWKMRKVITTEIMSPKRLNWLLGKRTEADNLVAYVHNMCQKSETNNKHG 61 SEQ ID  
NO:15

Query: 210 TVTNVNDLFFKYSMEGVATILYEST-LG---CLENSIP-QLTVEYIEALELMFSMFKTS 263  
V +V D+ Y V +++ R G ++ P E+++A+  
Sbjct: 62 AVIDVRDVVRHYCHNVMMRMMFGRRHFGKGTZFSDDGGPGPEEKEHMDAIFTALDCLYAF 121

Query: 264 MYAGAIIPRWLR 274  
+ IPRWLR  
Sbjct: 122 CVSDYIPRWLR 132

FIG. 13a

Query: 458 RWLRKGDL 466  
RWLR DLD  
Sbjct: 129 RWLRGWDL 137 SEQ ID NO:16

FIG. 13b